

WHAT IS CLAIMED IS:

1. An image processing apparatus for executing an error diffusion process to multivalued image data consisting of a plurality of density components,

5 comprising:

first processing means for executing the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for said error
10 diffusion process on the basis of a value of said multivalued image data of the density components or a value calculated from said multivalued image data value;

second processing means for executing the error
15 diffusion process by setting the quantization threshold value and the quantization diffusion coefficient which are used for said error diffusion process into fixed values; and

error diffusion processing control means for
20 making control to execute the error diffusion process to at least one color among said plurality of density components by said first processing means and execute the error diffusion process to other density components by said second processing means.

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2. An apparatus according to claim 1, wherein said error diffusion processing control means

executes the error diffusion process to the density components of a similar color among said plurality of density components by executing the error diffusion process to the density component whose highest
5 density which can be expressed is low by said first processing means and executing the error diffusion process to the density component whose highest density which can be expressed is high by said second processing means.

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3. An apparatus according to claim 1, wherein said first processing means is an error diffusion process for executing quantization on the basis of information of the other density components among
15 said plurality of density components.

4. A print control apparatus for executing an error diffusion process to multivalue image data consisting of a plurality of density components,
20 comprising:

first processing means for executing the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for said error
25 diffusion process on the basis of a value of said multivalue image data of the density components or a value calculated from said multivalue image data

value;

second processing means for executing the error diffusion process by setting the quantization threshold value and the quantization diffusion coefficient which are used for said error diffusion process into fixed values; and

error diffusion processing control means for making control to execute the error diffusion process to at least one color among said plurality of density components by said first processing means and execute the error diffusion process to other density components by said second processing means.

5. An apparatus according to claim 4, wherein said error diffusion processing control means executes the error diffusion process to the density components of a similar color among said plurality of density components by executing the error diffusion process to the density component whose highest density which can be expressed is low by said first processing means and executing the error diffusion process to the density component whose highest density which can be expressed is high by said second processing means.

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6. An apparatus according to claim 4, wherein said first processing means is an error diffusion

process for executing quantization on the basis of information of the other density components among said plurality of density components.

- 5 7. An image processing method of executing an error diffusion process to multivalue image data consisting of a plurality of density components, comprising:

 a first processing step of executing the error
10 diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for said error diffusion process on the basis of a value of said multivalue image data of the density components or a
15 value calculated from said multivalue image data value;

 a second processing step of executing the error diffusion process by setting the quantization threshold value and the quantization diffusion
20 coefficient which are used for said error diffusion process into fixed values; and

 an error diffusion processing control step of making control to execute the error diffusion process to at least one color among said plurality of density
25 components by said first processing step and execute the error diffusion process to other density components by said second processing step.

8. A method according to claim 7, wherein in said error diffusion processing control step, the error diffusion process is executed to the density components of a similar color among said plurality of
5 density components by executing the error diffusion process to the density component whose highest density which can be expressed is low by said first processing step and executing the error diffusion process to the density component whose highest
10 density which can be expressed is high by said second processing step.

9. A method according to claim 7, wherein said first processing step is an error diffusion process
15 for executing quantization on the basis of information of the other density components among said plurality of density components.

10. A print control method of executing an
20 error diffusion process to multivalue image data consisting of a plurality of density components, comprising:

a first processing step of executing the error diffusion process by changing at least one of a
25 quantization threshold value and a quantization diffusion coefficient which are used for said error diffusion process on the basis of a value of said

multivalue image data of the density components or a value calculated from said multivalue image data value;

5 a second processing step of executing the error diffusion process by setting the quantization threshold value and the quantization diffusion coefficient which are used for said error diffusion process into fixed values; and

10 an error diffusion processing control step of making control to execute the error diffusion process to at least one color among said plurality of density components by said first processing step and execute the error diffusion process to other density components by said second processing step.

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11. A method according to claim 10, wherein in said error diffusion processing control step, the error diffusion process is executed to the density components of a similar color among said plurality of density components by executing the error diffusion process to the density component whose highest density which can be expressed is low by said first processing step and executing the error diffusion process to the density component whose highest density which can be expressed is high by said second processing step.

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12. A method according to claim 10, wherein
said first processing step is an error diffusion
process for executing quantization on the basis of
information of the other density components among
5 said plurality of density components.

13. A computer-readable storing medium which
stores an image processing program for executing an
error diffusion process to multivalue image data
10 consisting of a plurality of density components,
wherein said program comprises:

a first processing step of executing the error
diffusion process by changing at least one of a
quantization threshold value and a quantization
15 diffusion coefficient which are used for said error
diffusion process on the basis of a value of said
multivalue image data of the density components or a
value calculated from said multivalue image data
value;

20 a second processing step of executing the error
diffusion process by setting the quantization
threshold value and the quantization diffusion
coefficient which are used for said error diffusion
process into fixed values; and

25 an error diffusion processing control step of
making control to execute the error diffusion process
to at least one color among said plurality of density

components by said first processing step and execute the error diffusion process to other density components by said second processing step.

5 14. A medium according to claim 13, wherein in said error diffusion processing control step, the error diffusion process is executed to the density components of a similar color among said plurality of density components by executing the error diffusion
10 process to the density component whose highest density which can be expressed is low by said first processing step and executing the error diffusion process to the density component whose highest density which can be expressed is high by said second
15 processing step.

 15. A medium according to claim 13, wherein said first processing step is an error diffusion process for executing quantization on the basis of
20 information of the other density components among said plurality of density components.

 16. A computer-readable storing medium which stores a print control program for executing an error
25 diffusion process to multivalued image data consisting of a plurality of density components, wherein said program comprises:

a first processing step of executing the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for said error
5 diffusion process on the basis of a value of said multivalue image data of the density components or a value calculated from said multivalue image data value;

a second processing step of executing the error
10 diffusion process by setting the quantization threshold value and the quantization diffusion coefficient which are used for said error diffusion process into fixed values; and

an error diffusion processing control step of
15 making control to execute the error diffusion process to at least one color among said plurality of density components by said first processing step and execute the error diffusion process to other density components by said second processing step.

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17. A medium according to claim 16, wherein in said error diffusion processing control step, the error diffusion process is executed to the density components of a similar color among said plurality of
25 density components by executing the error diffusion process to the density component whose highest density which can be expressed is low by said first

processing step and executing the error diffusion process to the density component whose highest density which can be expressed is high by said second processing step.

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18. A medium according to claim 16, wherein said first processing step is an error diffusion process for executing quantization on the basis of information of the other density components among
10 said plurality of density components.

19. An image processing program for executing an error diffusion process to multivalue image data consisting of a plurality of density components,
15 comprising:

a first processing step of executing the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for said error
20 diffusion process on the basis of a value of said multivalue image data of the density components or a value calculated from said multivalue image data value;

a second processing step of executing the error
25 diffusion process by setting the quantization threshold value and the quantization diffusion coefficient which are used for said error diffusion

process into fixed values; and

an error diffusion processing control step of making control to execute the error diffusion process to at least one color among said plurality of density components by said first processing step and execute the error diffusion process to other density components by said second processing step.

20. A program according to claim 19, wherein in said error diffusion processing control step, the error diffusion process is executed to the density components of a similar color among said plurality of density components by executing the error diffusion process to the density component whose highest density which can be expressed is low by said first processing step and executing the error diffusion process to the density component whose highest density which can be expressed is high by said second processing step.

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21. A program according to claim 19, wherein said first processing step is an error diffusion process for executing quantization on the basis of information of the other density components among said plurality of density components.

22. A print control program for executing an

error diffusion process to multivalue image data consisting of a plurality of density components, comprising:

5 a first processing step of executing the error diffusion process by changing at least one of a quantization threshold value and a quantization diffusion coefficient which are used for said error diffusion process on the basis of a value of said multivalue image data of the density components or a
10 value calculated from said multivalue image data value;

a second processing step of executing the error diffusion process by setting the quantization threshold value and the quantization diffusion
15 coefficient which are used for said error diffusion process into fixed values; and

an error diffusion processing control step of making control to execute the error diffusion process to at least one color among said plurality of density
20 components by said first processing step and execute the error diffusion process to other density components by said second processing step.

23. A program according to claim 22, wherein in
25 said error diffusion processing control step, the error diffusion process is executed to the density components of a similar color among said plurality of

density components by executing the error diffusion
process to the density component whose highest
density which can be expressed is low by said first
processing step and executing the error diffusion
5 process to the density component whose highest
density which can be expressed is high by said second
processing step.

24. A program according to claim 22, wherein
10 said first processing step is an error diffusion
process for executing quantization on the basis of
information of the other density components among
said plurality of density components.